IN THE SPECIFICATION:

(1) Please replace the paragraph beginning at page 5, line 13, with the following:

In order to fabricate an EML according to the present invention, a laser diode region 21 and a modulator region 22 are grown in a buried-heterostructure simultaneously. Referring to FIG. 2, the integrated EML is initially fabricated on a wafer grown from an n^{++}-InP substrate **20** on which are grown a number of layers, including a p doped InP **clad** layer 23 and an undoped InP layer 24. The undoped InP layer 24 is capped by an InGaAs cap layer **25**. That is to say, the InP layer 24 is grown on top of a predetermined region of the p-type clad layer 23 without impurity doping, and the InGaAs cap layer **25** is grown on top of the InP layer 24 without impurity doping. Here, the InGaAs cap layer **25** has a relatively low resistance, thus serves as a contact layer to which electrical contacts may be made.

(2) Please replace the paragraph beginning at page 6, line 1 with the following:

Thereafter, as shown in FIG. 3, a mask layer 33 is arranged on and defines ~~defining~~ a trench region (or isolation region **43, shown in Fig. 4**) is formed in strips, between a laser diode region ~~31~~ 21 and a modulator region ~~32~~ 22, with a material that prevents Zn diffusion, such as SiO_2 or SiNx. The mask layer 33 is provided to prevent the diffusion of Zn in the trench region.

(3) Please replace the paragraph beginning at page 6, line 6 with the following:

Referring again to FIG. 3, one of Zn-diffusing materials selected from ZnO, Zn_3As_2, and Zn_3P_2 is then deposited in the remaining laser diode ~~31~~ 21 and modulator ~~32~~ 22 regions to form Zn-diffusing layer 34**, comprised of p-InP layer 34-1 and p-InGaAs layer 34-2**. Then, the whole

structure shown in FIG. 3 is heated at a predetermined temperature, so that Zn of the Zn compound can be introduced into the InGaAs cap layer **25**. It is preferable to induce the Zn diffusion at a Zn diffusion facilitating temperature range, for example, at 500 to 600°C. It is preferable that Zn is doped at a concentration of $10^{19}cm^{-3}$ to achieve an ohmic contact characteristic. In addition, the doping concentration after Zn diffusion was set to be 3×10^{19} to $4\times10^{19}cm^{-3}$, thus exhibiting excellent contact characteristics.

(4) Please replace the paragraph beginning at page 6, line 16, with the following:

As a result of Zn diffusion, the undoped InP layer 24 and the InGaAs cap layer **25** are doped to a p-type. Alternatively, it is also possible to diffuse Zn by loading a Zn material into an ampoule. Furthermore, the undoped InP layer 24 and the InGaAs cap layer **25** can be deposited by MOCVD (Metal Organic Chemical Vapor Deposition) or molecular ray epitaxy. After the diffusion, the mask layer 33 is removed.

(5) Please replace the paragraph beginning at page 7, line 5 with the following:

Next, referring to FIG. 4, the InGaAs cap layer in the trench region 43, which was covered by the mask layer 33 **(shown in Fig. 3)**, is etched to a predetermined depth for isolation. The InGaAs cap layer **25** and the undoped InP layer 24 underneath the trench region 43 are not doped with an impurity and thus experience no Zn diffusion. Despite the etching of the InGaAs cap layer underneath the trench region 43 to a predetermined depth, the remaining InGaAs cap layer **25** electrically isolates the laser diode region ~~41~~ **21** from the modulator region ~~42~~ **22**. Finally, a metal **contact** layer 41 and 42, e.g., Au, is formed on top of the respective laser diode ~~31~~ **21** and the modulator ~~32~~ **22** regions. Thus, the fabrication of EML is completed.